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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/783,245

02/20/2004

Eric Jones

OSTEONICS 3.0-452

1363

530 7590 10/12/2007  
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EXAMINER

PHILOGENE, PEDRO

ART UNIT

PAPER NUMBER

3733

MAIL DATE

DELIVERY MODE

10/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/783,245

Applicant(s)

JONES, ERIC

Examiner

Pedro Philogene

Art Unit

3733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20,22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20,22,23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20, 22,23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steinemann et al. (5,456,723) in view of Cooper et al. (4,948,457) in view of Sonuparlak et al. (5,480,676) in view of Davidson et al. (5,344,494).

Steinemann et al disclose a method for surface treating of a metal orthopedic prosthesis or prosthetic titanium implant comprising blasting at least the portion for implantation in bone, as set forth in column 5, lines after leaching out any grit on the stem surface with acid; as set forth in 4, lines 1-14; the bone contacting portion having a surface with an average surface roughness Sq of 5-10 um, the surface being substantially free of aluminum and silicon contamination when measure by an EDAX element analysis; as set forth in column 3, lines 1-35.

It is noted that Steinemann et al did not teach of chilled iron grit, as claimed by applicant. However, in a similar art, Cooper et al evidence the use of a chilled iron grit to prepare the surface of the metal component.

Therefore, given the teaching of Cooper, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use chilled iron grit to blast the surface of the implant.

It is noted that the above combination of references did not teach of an acid treatment that is 20% nitric acid for at least 20 minutes at ambient temperature; as claimed by applicant. However, in a similar art, Sonuparlak et al evidences the use of an acid treatment that is 20% nitric acid for at least 20 minutes at ambient temperature in order to remove a majority of the metallic constituent from the surface of a sample.

Therefore, given the teaching of Sonuparlack et al, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Steinemann/Cooper et al to remove a majority of the metallic constituent from the surface of the metal prosthesis.

As to the blasting with a G07 or G12 and the pressure of 6.5 bar and nozzle between 9 mm to 9.5mm and the blasting time or time between 3-4 minutes with a stand –off distance between 10-15 mm; Cooper discloses, in column 2, lines 62, that conditions and duration of the grit blasting will have to be discovered empirically since the optimum process parameters depend on the hardness and size of the grit and speed of the grit particles on impact against the metal component. Therefore, given the teaching of Cooper et al, it would have been obvious to one having ordinary skill in the art to arrive at these parameters; as claimed by applicant.

It is also noted that the above combination of references did not teach of two different size grit blasting agents each using a first and second blasting steps with a

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cleaning step in between each blasting step; as claimed by applicant. However, in a similar art, Davidson et al, column 2, lines 12-33, column 3, lines 45-61, column 5, lines 14-37, evidences the use of two different size grit blasting agents each using a first and second blasting steps with a cleaning step in between each blasting step to remove debris held in the interstitial spaces and also removal of loosely adherent particles of porous coatings and roughened surfaces.

Therefore, given the teaching of Davidson et al., it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Steinemann et al/ Cooper et al/Sonuparlak et al., as taught by Davidson et al to remove debris held in the interstitial spaces and also removal of loosely adherent particles of porous coatings and roughened surfaces.

### ***Response to Amendment***

Applicant's arguments with respect to claims 1-20, 22,23 have been considered but are moot in view of the new ground(s) of rejection. After further consideration, a new ground of rejections is made in view of Davidson et al.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR.1.136(a).

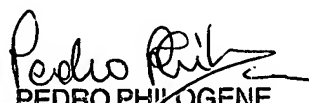
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro Philogene whose telephone number is (571) 272-4716. The examiner can normally be reached on Monday to Friday 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on (571) 272 - 4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
PEDRO PHILOGENE  
PRIMARY EXAMINER

Pedro Philogene  
October 5, 2007